CLAIMS

What is claimed is:

1. A computer-readable medium containing computer-executable instructions for performing steps for updating routing information, said steps comprising:

5   maintaining one or more sets of routing information;

receiving a network topology change indication, the network topology change indication being one of a progressive series of network changes with at least one more associated network topology change indication of the progressive series of network changes expected to be received in the future;

10   computing an updated set of routing information based on the network topology change indication;

determining whether or not the updated set of routing information changes nexthop information for one or more routes; and

in response to determining that the new set of routing information does not change

15   nexthop information for said one or more routes and said expectation of said at least one more associated network topology change indication of the progressive series of network changes to be received in the future, not updating said one or more sets of routing information based on the updated set of routing information.

2. The computer-readable medium of claim 1, wherein said steps comprise: in

20   response to determining that the new set of routing information does change nexthop information for said one or more routes, updating said one or more sets of routing information based on the updated set of routing information.

3. The computer-readable medium of claim 1, wherein the network topology change indication identifies one or more routing metric changes and a value identifying

25   that said at least one more associated network topology change indication of the progressive series of network changes is expected to be received in the future.

4. The computer-readable medium of claim 1, wherein said steps further comprise: in response to identifying a timeout condition corresponding to the updated set of routing information, updating said one or more sets of routing information based on the updated set of routing information.

5 5. A method for updating routing information, the method comprising:

maintaining a routing information base;

receiving a network topology change indication, the network topology change indication including a route update of a progressive series of route updates and an indication to expect one or more route updates of the progressive series of route updates;

10 performing a shortest path first determination based on the route update and the routing information base to identify an updated set of routing information;

determining that the updated set of routing information does not change nexthop information for one or more routes included in the routing information base; and

in response to said determining that the updated set of routing information does

15 not change nexthop information for one or more routes included in the routing information base and the indication to expect one or more route updates of the progressive series of route updates, not updating said one or more sets of routing information based on the updated set of routing information.

6. The method of claim 5, wherein the network topology change indication

20 corresponds to switching to a computed backup path.

7. The method of claim 5, comprising: in response to identifying a timeout condition corresponding to the updated set of routing information, updating said one or more sets of routing information based on the updated set of routing information.

8. An apparatus for updating routing information, said apparatus comprising:

means for maintaining one or more sets of routing information;

means for receiving a network topology change indication, the network topology change indication being one of a progressive series of network changes with at least one more associated network topology change indication of the progressive series of network changes expected to be received in the future;

means for computing an updated set of routing information based on the network topology change indication;

means for not updating said one or more sets of routing information based on the updated set of routing information in response to determining that the new set of routing information does not change nexthop information for said one or more routes and said expectation of said at least one more associated network topology change indication of the progressive series of network changes to be received in the future.

9. The apparatus of claim 8, comprising: means for updating said one or more sets of routing information based on the updated set of routing information in response to determining that the new set of routing information does change nexthop information for said one or more routes.

10. The apparatus of claim 8, wherein the network topology change indication identifies one or more routing metric changes and a value identifying that said at least one more associated network topology change indication of the progressive series of network changes is expected to be received in the future.

11. The apparatus of claim 8, comprising: means for updating said one or more sets of routing information based on the updated set of routing information in response to identifying a timeout condition corresponding to the updated set of routing information.

12. An apparatus for updating routing information, the method comprising:

means for maintaining a routing information base;

means for receiving a network topology change indication, the network topology change indication including a route update of a progressive series of route updates and an indication to expect one or more route updates of the progressive series of route updates;

means for performing a shortest path first determination based on the route update and the routing information base to identify an updated set of routing information;

means for not updating said one or more sets of routing information based on the updated set of routing information in response to determining that the updated set of routing information does not change nexthop information for one or more routes included in the routing information base and the indication to expect one or more route updates of the progressive series of route updates.

13. The apparatus of claim 12, comprising: means for updating said one or more sets of routing information based on the updated set of routing information in response to identifying a timeout condition corresponding to the updated set of routing information.